

R2-W12D2/D4

12" R-Series "R2" Subwoofer

ALPINE



PRODUCT OVERVIEW

The next generation of sound performance is here with the new R-Series subwoofers featuring a larger motor structure for more accurate and authoritative bass.

PRODUCT FEATURES

New Motor Structure – The new R-Series subwoofers now feature larger, double-stacked magnets that contribute more motor force for deeper bass and tighter bass control compared to the previous generation.

Oversized Dust Cap – The new hybrid poly ceramic composite dust cap ensures rigidity while also providing incredible internal damping (vibration absorption) to smooth out the bass response and reproduce tight bass.

Increased Accuracy – Alpine's High Amplitude Multi-Roll (HAMR) Surround Technology allows the cone to efficiently move air while staying cool resulting in incredible accuracy from the subwoofer.



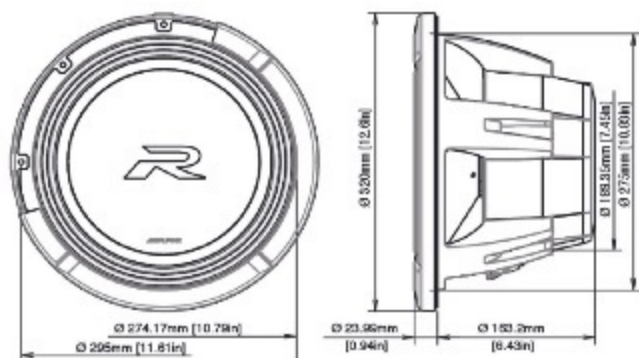
POWER RANGE: 300-750W



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GENERAL SPECS

- Size: 12"
- Dimensions: 11.61" x 11.61" x 6.43"
- Frequency Response: 24Hz - 200Hz
- Power Range: 300W - 750W RMS
- Power Handling: 750W RMS / 2250W Peak
- Magnet Weight: 144 oz
- Voice Coil Diameter: 65.5 mm (2.6")

R2-W12D2 - THIELE-SMALL PARAMETERS

- Sensitivity (1W/1m): 85 dB
- DC Resistance (R_e): $1.9\Omega + 1.9\Omega$
- Free Air Resonance (F_s): 29 Hz
- Equivalent Stiffness: 36.9 L
- Mechanical Q (Q_{ms}): 6.32
- Electrical Q (Q_{es}): 0.44
- Total Q (Q_{ts}): 0.41
- Cone Area (S_d): 479 cm²
- Linear Excursion (X_{max}): 20 mm
- Mechanical Travel (X_{mech}): 72 mm

BOX SPECS

SEALED BOX RANGE:

Net Internal Volume: 0.55 - 1.0 ft³

RECOMMENDED SEALED BOX:

External Dimensions: 14" x 14" x 11"

Gross Internal Volume: 0.85 ft³

Net Internal Volume: 0.75 ft³

D2 - F3, Qtc: 43 Hz, 0.65

D4 - F3, Qtc: 39 Hz, 0.84

VENTED BOX RANGE:

Net Internal Volume: 1.0 - 1.5 ft³

Fb, Tuning: 33-37 Hz

RECOMMENDED VENTED BOX:

External Dimensions: 12.5" x 14" x 25.5"

Gross Internal Volume: 1.91 ft³

Vent Area (W x H): 18.75 in² (12.5" x 1.5")

Vent Length: 22"

Vent Displacement: 0.36 ft³

Net Internal Volume (Vb): 1.45 ft³

D2 - F3, Ripple, Fb: 29 Hz, 4.3 dB, 36 Hz

D4 - F3, Ripple, Fb: 28 Hz, 5.8 dB, 36 Hz

R2-W12D4 - THIELE-SMALL PARAMETERS

- Sensitivity (1W/1m): 84.6 dB
- DC Resistance (R_e): $3.5\Omega + 3.5\Omega$
- Free Air Resonance (F_s): 30 Hz
- Equivalent Stiffness: 32.8 L
- Mechanical Q (Q_{ms}): 6.51
- Electrical Q (Q_{es}): 0.55
- Total Q (Q_{ts}): 0.51
- Cone Area (S_d): 479 cm²
- Linear Excursion (X_{max}): 20 mm
- Mechanical Travel (X_{mech}): 72 mm